

For Further Technical Progress

S/028/60/000/008/001/010
B013/B054

the Council of Ministers. The so-called parametric standards are of special importance. They influence both the technical level of producing and consuming branches of national economy. About 200 standards specifying the types, main dimensions, and parameters of machine construction products are to be added in the next 2-3 years to the approximate 500 existing at present.

ASSOCIATION: Komitet standartov, mer i izmeritel'nykh priborov pri Sovete Ministrov SSSR (Bureau of Standards, Measures, and Measuring Instruments at the Council of Ministers of the USSR) ✓

Card 4/4

VYATKIN, A.Ye.

1985

International Standardization Organization. Standartizatsiya
25 no. 12:2-8 D '61. (MIRA 14:11)
(Standardization)

TUMANOV, A.T., glav. red.; VYATKIN, A.Ye., red.; GARBAR, M.I., kand. tekhn. nauk, red.; ZAYMOVSKIY, A.S., red.; KARGIN, V.A., red.; KISHKIN, S.T., red.; KISHKINA-PATNER, S.I., doktor tekhn. nauk, red.; PANSHEIN, B.I., kand. tekhn. nauk, red.; ROGOVIN, Z.A., doktor khoz. nauk, red.; SAZHIN, N.P., red.; SKLYAROV, N.M., doktor tekhn. nauk, red.; FRIDLYANDER, I.N., doktor tekhn. nauk, red.; SHUBNIKOV, A.V., red.; SHCHERBINA, V.V., doktor gool.-miner. nauk, red.; SHRAIBER, D.S., kadn. tekhn. nauk, red.; GENEL', S.V., kand. tekhn. nauk, red.; NOVIKOV, A.S., doktor khoz. nauk, red.; KITAYGORODSKIY, I.I., doktor tekhn. nauk, red.; ZHEKEBKOV, S.K., kand. tekhn. nauk, red.; BOGATYREV, P.M., kand. tekhn. nauk, red.; BUROV, S.V., kand. tekhn. nauk, red.; POTAK, Ya.M., doktor tekhn. nauk, red.; KUKIN, G.N., doktor tekhn. nauk, red.; KOVALEV, A.I., kand. tekhn. nauk, red.; ZENTSEL'SKAYA, Ch.A., tekhn. red.

[Building materials; an encyclopedia of modern technology]
Konstruktsionnye materialy; entsiklopediia sovremennoi tekhniki. Glav. red. Tumanov, A.A. Moskva, Sovetskaya entsiklopediia. Vol.1. Abliatsiia - Korrozii. 1963. 416 p.
(MIRA 17:3)

1. Chlen-korrespondent AN SSSR (for Kishkin).

VYATSKIN, A.Ya.; PILYANKEVICH, A.N.

Some energy characteristics of the passage of electrons through
solids. Fiz. tver. tela 5 no.8:2285-2293 Ag '63. (MIRA 16:9)

1. Leningradskiy institut tochnoy mekhaniki i optiki.
(Electron beams)

VJATKIN, A.E. [Vyatkin, A.Ye.]

Standardization as a means of the scientific-technical and economic progress. Szabvany kozl no.7:154-158 J1 '62.

1. President, International Organization for Standardization.

VIATKIN, A.Ye.

Standardization of measuring equipment and the improvement of precision
and interchangeability in the manufacture of machinery. Standartizatsiia
26 no.5:3-10 My '62. (MIRA 15:7)

(Measuring instruments—Standards) (Machinery industry)
(Interchangeable mechanisms)

VYATKIN, Andrey Ye.

"International standardization as a means for scientific-and-technical and economic advance; its role in inculcation of progressive industrial methods in under-developed countries"

report to be submitted for the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas - Geneva, Switzerland, 4-20 Feb 63.

VYATKIN, A.Ye.

Czechoslovak machinery industry (based on materials of the second
exhibition of Czechoslovakian machinery industry). Vest. mash. 37
no. 4:74-81 Ap '57. (MLRA 10:6)
(Czechoslovakia--Machinery industry--Exhibitions)

VYATKIN, B.A.

Effect of stress situation on some motor qualities of students depending on typological differences in the strength of the excitation process. Vop. psikhol. no.4:39-49 J1-Ag '64.

(MIRA 17:11)

1. Kafedra psikhologii pedagogicheskogo instituta, Perm'.

VYATKIN, D.G.

Continuous cooking of sulfate pulp. *Bum.prom.* 35 no.2:18-
21 P '60. (MIRA 13:6)

1. Direktor Mariyskogo tsellyulozno-bumazhnogo kombinata.
(Woodpulp)

VYATKIN, D.G.

Modernization of the Mari Combine. Bum.prom. 35 no.6:12
Je '60. (MIRA 13:7)

1. Mariyskiy tsellyulozno-bumazhnyy kombinat.
(Volzhsk--Paper industry)

VYATKIN, D.G.

Expert utilization of industrial resources. Bum.prom. 36 no.3:2-3
Mr '61. (MIRA 14:4)

1. Direktor Mariyskogo kombinata.
(Volzhsk--Paper industry)

VYATSKIN, B.Ya., inzhener; KUZNETSOV, S.A., inzhener; MIKHAYLOVA, A.P., inzhener.

AST-4 automatic synchronizer with fixed advance. Elek.sta.27 no.6:29-31
Je '56. (Electric controllers) (MIRA 9:9)

VIATKIN, D.G.

Making fuller use of production resources. Bum.prom.
35 no.7:13-14 Je '60. (MIRA 13:8)

1. Direktor Mariyskogo tsellyulosno-bumazhnogo kombinata.
(Woodpulp industry)

VYATKINA, O.V.; VYATKIN, D.G.

Production of a sulfate insulating pulp from hardwood. *Bum.prom.*
35 no.9:19-22 S '60. (MIRA 13:9)

1. Mariyskiy tsellyulozno-bumazhnyy kombinat.
(Volzhsk--Woodpulp)

1ST AND 2ND CODES										3RD AND 4TH CODES									
PROCEDURES AND PROPERTIES MODE																			
5										7									
<p>Trial Operation of a 150-Ton Open-Hearth Furnace According to a Schedule. E. Vyatkin and D. Loginov. (Stal, 1938, No. 8-9, pp. 23-38). (In Russian). The causes of the deviations from schedule of open-hearth heats are presented. These include deviations during the preparatory charging period as well as deviations from the required heat supply during melting. In the first heats the time taken may differ by as much as 5% from that required by the schedule. By a more exact rate of heat supply, by using a standardised air consumption curve and even by a partial control of the boil the deviations in the duration of the heats may easily be reduced to ± 30 min.</p>																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
FROM STIRLING										FROM BOMBY									
1ST AND 2ND CODES										3RD AND 4TH CODES									
1 2 3 4 5 6 7 8 9 10										11 12 13 14 15 16 17 18 19 20									
A B C D E F G H I J										K L M N O P Q R S T U V W X Y Z									

VYATKIN, G.F.

GREBENSHCHIKOV, P.A., .obshchiy red.; YUDOLOVICH, V.V., red.; VYATKIN, G.F.,
red., NERUCHEV, G.A.; red.; SUKHORUKOV, M.A., red.; STRASH, G.F.,
red. MUKHINA, A.I., red.; KOLESNIKOV, P.M., red. izd-va; SEMENCHENKO,
P.P., tekhn. red.

[Economy of the Chechen-Ingush A.S.S.R.; a statistical manual]
Narodnoe khoziaistvo Checheno-Ingushskoi ASSR; statisticheskii
sbornik. [Oroznyi] Checheno-Ingushskoe knizhnoe izd-vo, 1957. 131 p.
(MIRA 11:3)

1. Chechen-Ingush A.S.S.R. Statisticheskoye upravleniye. 2. Nachal'-
nik Statisticheskogo upravleniya Checheno-Ingushskoy ASSR (for
Grebenshchikov)

(Chechen-Ingush A.S.S.R.—Statistics)

S/137/62/000/003/053/191
A006/A101

AUTHORS: Kholzakov, V. I., Ostroukhov, M. Ya., Kopyrin, I. A., Vyatkin, G. P.,
Tarashchuk, N. T., Filipov, Yu. P., Nikol'skiy, M. A., Lapotyshkin,
V. P., Chistyakov, A. Ye., Pimenov, L. I.

TITLE: Experimental blast-furnace melting of oxidized nickel ores on matte

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 28, abstract 30189
("Sb. nauchno-tekhn. tr. N.-1. in-t metallurgii Chelyab. sovarkhoza",
1961, no. 3, 164 - 170)

TEXT: During 5 months experimental melting of Ni-ore sinter and lumps
(coarse fraction) on matte was carried out in a 6.4-m² blast furnace. The follow-
ing statements were made: coke consumption is by about 20 - 25% less than in
melting in a shaft furnace operating on compressed air on account of preheated
blast and fuller utilization of the heat in the furnace; the SiO₂ content can be
raised up to 49%. The temperature of exhaust gases is 40 - 60°C. The deficiencies
of a blast furnace are: the necessity of using only well lumped charges; 0 - 55
fraction must be screened off before charging into the furnace; the hearth and

Card 1/2

S/137/62/000/003/053/191
A006/A101

Experimental blast-furnace melting...

the bosh of the furnace should be operated on compressed air. See also RZhMet,
1961, 10203, 30193.

A. Tsedyler

[Abstracter's note: Complete translation]

Card 2/2

VYATKIN, G.P.; OSTROUKHOV, M.Ya.; Prinimali uchastiye: KHOLZAKOV, V.I.;
KOPYRIN, I.A.; TARASHCHUK, N.T.; FILIPPOV, Yu.P.; NIKOL'SKIY, M.A.;
CHISTYAKOV, A.Ye.; PIMENOV, L.I.

Investigating the process of blast furnace smelting for
the production of nickel matte. [Sbor. trud.] Nauch.-issl.inst.met.
no.4:71-81 '61. (MIRA 15:11)

(Nickel—Metallurgy)
(Blast furnaces)

KOPYRIN, I.A. (Chelyabinsk); VYATKIN, G.P. (Chelyabinsk); RUSAKOVA, A.G.
(Chelyabinsk); KARSHIN, V.P. (Chelyabinsk); KURUNOV, I.F. (Chelyabinsk)

Processes in the tuyere zone of a blast furnace. Izv. AN SSSR. Met.
no.1:18-20 Ja-F '65. (MIRA 18:5)

VYATKIN, G.P.; ZHILO, N.L.; OSTROUKHOV, M.Ya.

Viscosity of high-magnesium iron slags. [Sbor. trud.]
Nauch.-issl.inst.met. no.4:26-32 '61. (MIRA 15:11)
(Slag)
(Viscosimetry)

VYATKIN, N.P.; NEKIPELOV, S.P.; POPOV, Yu.A.; GAVRILYUK, L.Ya.; FONTALIN, V.N.;
VYATKIN, G.P.; OSTROUKHOV, M.Ya.

Experience of five years of operating a 1,719m³ capacity furnace.
Stal' 24 no.11:964-968 N '64. (MIRA 18:1)

OSTROUKHOV, M.Ya.; PANCHENKO, S.I.; Prinimali uchastiye: FRISHBERG, V.D.;
PETROV, V.K.; RESHETKO, A.; VIATKIN, G.P.; BRATCHENKO, V.P.;
POFANOV, A.A.; MILYAYEV, M.N.; PRIVALOV, V.Ye.; MUSTAFIN, F.A.;
PUSHKASH, I.I.; LAZAREV, B.L.

Experimental blast furnace smelting using coke from wet
preparation coals. [Sbor. trud.] Nauch.-issl.inst.met.
no.4:63-70 '61. (MIRA 15:11)

1. Vostochnyy uglekhimicheskiy institut (for Ostroukhov, Panchenko,
Frishberg, Petrov, Reshetko). 2. Nauchno-issledovatel'skiy institut
metallurgii (for Vyatkin, Bratchenko). 3. Nizhne-Tagil'skiy
metallurgicheskiy kombinat (for Privalov, Mustafin, Pushkash,
Lazarev).

(Blast furnaces—Testing)
(Coke—Testing)

VYATKIN, G.P.; ZHILO, N.L.; OSTROUKHOV, M.Ya.

Viscosity of high-magnesium blast furnace slags with
10 to 20% ferrous oxide. Izv. vys. ucheb. zav.; chern.
met. 5 no.10:25-30 '62. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut metallurgii.
(Slag--Testing) (Viscosimetry)

VYATKIN, G.P.

Determining the law of motion for a mechanical unit according
to the diagram T, *W2*, Trudy Inst. mash. Sem. po teor. mash. 19
no.76:46-55 '59. (MIRA 13:3)
(Mechanical movements)

VIATKIN, G. S.

Using a reactor in the gas filled vacuum tube circuit. Energetik
8 no.5:25-26 My '60. (MIRA 13:8)
(Electronic apparatus and appliances)

VYATKIN, G.V.

Ways of lowering the costs of sugar at the sugar factories
of Altai Territory. Sakh.prom. 34 no.9:47-49 S '60.
(MIRA 13:9)

1. Tomskiy politekhnicheskii institut.
(Altai Territory—Sugar industry—Costs)

- KOZLOV, N.M.; KOKHAN, M.A.; VIATKIN, G.V.

Fighting sugar losses. Sakh.prom. 35[i.e. 36] no.2:18-19
P 162. (MIRA 15:4)

1. Bobrovitskaya gruppovaya laboratoriya (for Kozlov).
2. Khodorovskaya gruppovaya laboratoriya (for Kokhan).
3. Kiyevskiy institut narodnogo khozyaystva (for Vyatkin).
(Sugar manufacture)

VYATKIN, I.I., inzh.; RYSEV, G.S., inzh.; KISLYKH, A.S., inzh.;
PLEKHANOV, G.V., inzh.

Industrial testing of FP-1 mining unit. Gor.zhur. no.2:27-30
P.163. (MIRA 16:2)

1. Nauchno-issledovatel'skiy i proyektno-konstruktorakiy institut
Gornogo i obogatitel'nogo oborudovaniya, Sverdlovsk (for Vyatkin,
Ryaev, Kislykh). 2. Vyschogorskoye rudoupravleniye, Nizhniy Tagil
(for Plekhanov).

(Mining machinery--Testing)

CHUKHROV, M.V.; VYATKIN, I.P.; SOKOLOV, V.V.

Continuous horizontal casting of magnesium. TSvet. met. 36 no.12:60-64
D '63. (MIRA 17:2)

Y
VIATKIN, M.

Transport Turkmenskoi SSR. [Transportation of the Turkmen SSR]. (Bol. sov. ents., 1947, v. 55, col. 265-267).

Gives brief data on all forms of transportation.

DLC: AE55.B6

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

VYATKIN, M.I., Inzh.

Amphibious aerosleigh. Sudostroenie 30 no.10:40 0 '64.

(MIRA 17:12)

VYATKIN, Mikhail Porfir'yevich

[Mining and metallurgical industries of the Urals in
1900-1917] Gornozavodskii Ural v 1900-1917 gg. Moskva,
Nauka, 1965. 398 p. (MIRA 18:9)

VYATKIN, Mikhail Porfir'yevich; BUKOVETSKIY, A.N., prof., retsenzent;
DZHAMGERCHINOV, B.D., akademik, otv. red.; KOVAL'CHUK, V.V.,
red. izd-va; ANOKHINA, M.G., tekhn. red.

[Monopoly capital in Central Asia] Monopolisticheski kapital
v Srednei Azii. Frunze, Izd-vo Akad. nauk Kirgizskoi SSR,
1962. 160 p. (MIRA 15:9)

1. Akademiya nauk Kirgizskoy SSR (for Dzhangerchinov).
(Turkestan---Trusts, Industrial)

KRUZE, E.E.; BAKLANOVA, I.A.; KITANINA, T.M.; PLYUKHINA, M.A.;
TITOVA, A.N.; VYATKIN, M.P., otv. red.; GOL'DBERG, N.M.,
red.izd-va; KRUGLIKOVA, N.A., tekhn. red.

[Monopolies in the metal industries of Russia from 1900 to
1917; documents and materials] Monopolii v metallurgicheskoi
promyshlennosti Rossii, 1900-1917; dokumenty i materialy.
Moskva, Izd-vo Akad. nauk SSSR, 1963. 653 p. (MIRA 16:7)

1. Akademiya nauk SSSR. Institut istorii. Leningradskoye
otdeleniye.
(Iron industry) (Steel industry) (Copper industry)

VYATKIN, N.P.; NEKIPELOV, S.P.; POPOV, Yu.A.; GAVRILYUK, L.Ya.; FONTALIN, V.N.;
VYATKIN, G.P.; OSTROUKHOV, M.Ya.

Experience of five years of operating a 1,719m³ capacity furnace.
Stal' 24 no.11:964-968 N '64. (MIRA 18:1)

VYATKIN, N.P.

Chelyabinsk Metallurgical Plant is 20 years old. Stal' 23 no.4:289-290
Ap '63. (MIRA 16:4)

1. Direktor Chelyabinskogo metallurgicheskogo zavoda.
(Chelyabinsk—Iron and steel plants)

VYATKIN, N.B., inzh.; LUKIN, P.G., inzh.; POPOV, Yu.A., inzh.; NEKIPELOV, S.P.,
inzh.; SHAPOSHNIKOV, A.K., inzh.; PROKHOROV, V.N., inzh.

Making pig iron with an oxygen-enriched blow. Stal' 23 no. 4:293-296
Ap '63. (MIRA 16:4)
(Cast iron—Metallurgy) (Oxygen—Industrial applications)

VYATKIN, O.

SAPOZHNIKOV, M.; BUCHKOV, I.; VYATKIN, O.; D'YAKONOV, Yu.

Television in the U.S.S.R. Radio no.9:3-6 S '57. (MIRA 10:10)

1. Nachal'nik Sverdlovskogo radiotsentra (for Sapozhnikov).
2. Nachal'nik Leningradskogo televizionnogo tsentra (for Buchkov).
(Television)

V. A. T. 111, 0.

AUTHOR: Vyatkin, O. and D'yakonov, Yu.

107-9-5/53

TITLE: Contributions of Radio-Amateurs (Vklad radiolyubiteley)

PERIODICAL: Radio, 1957, # 9, p 5-6 (USSR)

ABSTRACT: The Tomsk TV-center was established by radio-amateurs with the help of workers of the Tomsk Polytechnic Institute, especially by the chief of the TV laboratory V.S. Melikhov, candidate of technical sciences, and several laboratory assistants.

The TV station has four channels: two channels serve for studio broadcasts and the two others for broadcasting movies. The equipment was manufactured at the TV laboratory of the Polytechnic Institute. The two transmitting cameras contain "JN-1" iconoscopes.

The first transmissions of the Tomsk TV center began in May 1955. Since the available floor space of the original studio was inadequate, a new studio had to be built. Regular TV broadcasts from this new studio began in March 1957. The effective range of the Tomsk TV-center is now 36 km.

However, a reliable reception can be obtained also at longer distances from the TV-center by utilizing accessory amplifier units and multiple directional antennas.

Card 1/2

The construction of a separate building for the TV-trans-

Contributions of Radio-Amateurs

107-9-5/53

mitters and a 100 m high TV antenna tower is planned. New 4-channel equipment, must be developed and manufactured by the Polytechnic Institute, and will be installed by amateurs in the new TV-center. The complete set of this equipment will contain studio transmitting cameras with "ЛМ-7" type tubes, designed by the engineer of the TV-laboratory of the Institute, Yu.I. Potekhin.

The Tomsk enterprises are manufacturing the equipment for the VHF radio-station. It will contain TV video transmitters of 5.0 kw and TV aural transmitters of 2.5 kw, as well as a radio FM transmitter.

There is one photo.

AVAILABLE: Library of Congress

Card 2/2

VYATKIN, S.K.

Foot-and-mouth disease control. Veterinariia 40 no.7:10-12 J1
1963, (MIRA 16:8)

1. Nachal'nik veterinarnogo otdela Severo-Kazakhstanskogo oblastnogo
upravleniya proizvodstva i zagotovok sel'skokhozyaystvennykh
produktov.

(North Kazakhstan Province--Foot-and-mouth disease--Preventive
inoculation)

VYATKIN, S.P.

The switch lever arm closing system has become more
reliable. Avtom., telem. i sviaz' 7 no.10:34 0 '63.
(MIRA 16:11)

1. Starshiy inzh. laboratorii signalizatsii i svyazi
Vostochno-Sibirskoy dorogi.

KUSAKIN, N.D.; VYATKIN, S.Ye.; AVERINA, M.V.

Structural modifications of carbon material in petroleum
pyrolysis cokes. TSvet.met. 38 no.10:59-62 0 '65.
(MIRA 18:12)

VYATKIN V. P.

p.3.

PHASE I BOOK EXPLOITATION

SOV/3718

Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-pressovogo mashino-stroyeniya

Issledovaniya i raschety mashin kuznechno-shtampovogochnogo proizvodstva (Studies and Calculations of Forging and Stamping Machinery) Moscow, Mashgiz, 1959. 233 p. (Series: Its: Sbornik, kniga 1) Errata slip inserted. 8,000 copies printed.

Sponsoring Agency: USSR. Gosudarstvennyy komitet po avtomatizatsii i mashino-stroyeniyu.

Ed.: A. I. Zot'yev, Candidate of Technical Sciences; Ed. of Publishing House: N. S. Stepanchenko; Tech. Ed.: T. F. Sokolova; Managing Ed. for Literature on Heavy Machine Building (Mashgiz): S. Ya. Golovin, Engineer; Editorial Board: G.P. Bol'shakov, Engineer; V. P. Vyatkin, Candidate of Technical Sciences; N. N. Vasil'yev, Engineer; A. P. Yemkin, Engineer; I. B. Matveyev, Candidate of Technical Sciences; M. A. Mar'yanchik, Engineer; P. V. Novichkov, Engineer; B. S. Perevozchikov, Engineer; S. A. Podrez, Engineer; L. V. Rubnenkova; V. N. Ukhanov; P. D. Chudakov, Candidate of Technical Sciences; and A. I. Zot'yev.

Card 1/10

Studies and Calculations of Forging (Cont.)

SOV/3718

PURPOSE: The book is intended for technical personnel and scientific workers in the metal-forming industry.

COVERAGE: This collection of 12 articles deals with current research on metal-forming operations, the design and operation of press-forging machinery, and stress and force analyses in punching and blanking operations. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

Podrez, S. A. [Engineer]. Optimum Values for the Energy Reserve of Flywheels, Angles of Nominal Pressures, and the Number of Strokes in Single-Action Crank-Driven Presses

The author discusses GOST standards (4862-49 and 7766-55) for improved crank length and number of strokes for single- and double-crank metal-forming presses. He presents an analysis of crank angles, flywheel stresses, and power reserves in flywheels. Formulas for computing desired values and empirical data suggested as standards are given.

Card 2/10

Studies and Calculations of Forging (Cont.)

SOV/3718

Vyatkin, V. P. [Candidate of Technical Sciences], and S. T. Baskakov, [Engineer]. Investigation of Stress-Strain Characteristics of Crank-Driven Die-Forging Presses

134

The authors report on the results of investigations made by ENIKMASH on a number of presses at the Novo-Kramatorskiy zavod (New Kramatorsk Plant), the Voronezhskiy zavod tyazhelykh mekhanicheskikh pressov (Voronezh Plant for Heavy Mechanical Presses), the Voronezh Plant imeni Kalinin, and the Barnaulskiy zavod mekhanicheskikh pressov (Barnaul Press Plant). Specifications of the presses are given. Soviet machines are compared to similar machines made in the United States and Czechoslovakia. The results of these investigations are compared to those obtained in similar investigations by TsNIIIMASH. The conclusion is drawn that heavy mechanical presses of the Voronezh Plant have a lower vertical-rigidity coefficient than the presses of the other Soviet and non-Soviet manufacturers. Design improvements and methods of calculating optimum parameters are suggested, and emphasis is given to the necessity of accounting for local elastic deformations.

Card 6/10

Activity of tanning extracts. P. VYATKIN. *Vestnik Koshovennoi Prom. Iorgov.*
1929, 571-2; *Chem. Zvest.* 1931, 1, 403.—An excess of CaCl_2 keeps the pH at 4.2-5.0
during all stages of tanning. The addn. of Na_2CO_3 cannot be recommended because
the amt. added must be regulated exactly by analysis. ALFRED HUNSON

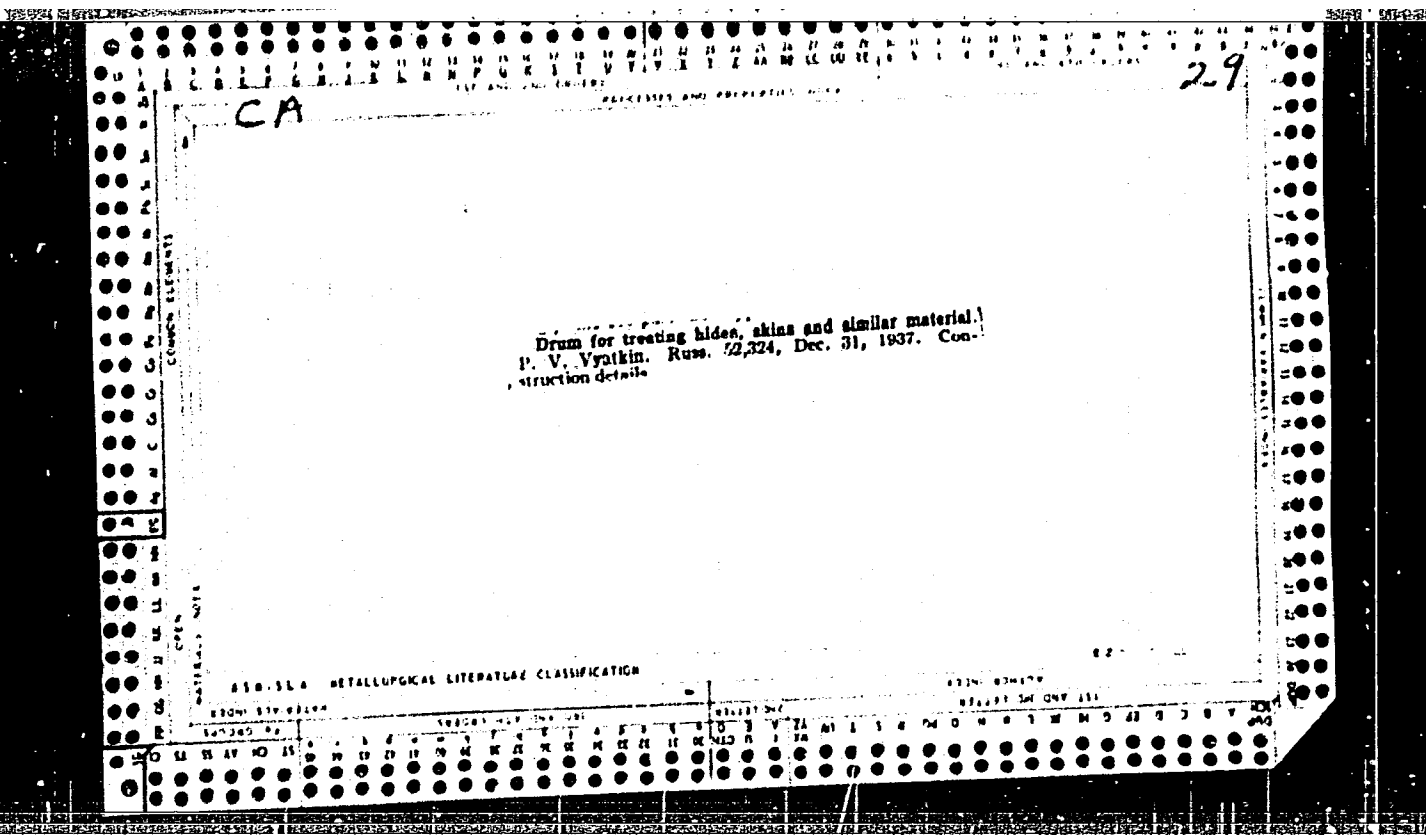
ASB-35.4 METALLURGICAL LITERATURE CLASSIFICATION

19

Activity of tanning extracts. P. VYATKIN. Vestnik Kuzbasskoi Prom. Torgov. 1930, 5:1-2; (Chem. Zentr. 1931, 1, 483).—An excess of CaCl_2 keeps the pH at 4.2-5.0 during all stages of tanning. The addn. of NaCl cannot be recommended because the amt. added must be regulated exactly by analysis. ALFRED HUNTER

AS 11.4 METALLURGICAL LITERATURE CLASSIFICATION

A microfiche card with a grid of frames. The central frame contains text about leather production. The card is labeled "OPEN" and "METALLURGICAL LITERATURE CLASSIFICATION". The text in the central frame is: "The production of leathers for uppers and inner soles from dog hide. P. Vyalkin, Vestnik Kuzbassko-Oblast' Prom. 1932, 34-8; Chem. Zentr. 1933, 1, 384. The process of manuf. is described. M. G. Moore". The card is labeled "OPEN" and "METALLURGICAL LITERATURE CLASSIFICATION". The text in the central frame is: "The production of leathers for uppers and inner soles from dog hide. P. Vyalkin, Vestnik Kuzbassko-Oblast' Prom. 1932, 34-8; Chem. Zentr. 1933, 1, 384. The process of manuf. is described. M. G. Moore".



PROCESSING AND PROPERTIES INDEX

Treating vegetable tanning extracts. P. V. VYATRIN. Russ. 24,917, May 26, 1927. In the prepn. of tanning exts. excess acids are removed by treatment with chalk or other alkali earth metal compounds together with weak acids. The addn. may be made at various stages of the proc.

VYATKIN, R.V.

30-12-15/45

AUTHOR: Vyatkin, R. V., Candidate of History.

TITLE: The Conference of Sinologists at Marburg
(Na konferentsii sinologov v Marburge).

PERIODICAL: Vestnik AN SSSR, 1957, Vol. 27, Nr 12, pp. 69-70 (USSR)

ABSTRACT: From September 5 to September 12 the 10th international conference of young sinologists took place in the old university town of Marburg (German Federal Republic). Such meetings of sinologists from various countries, which are now an important event in the life of science, have been held regularly since 1948. For each of these conferences, which have the character of a symposium, certain questions are usually prepared for discussion. The program of operation made it possible, however, to deliver lectures also on other subjects. This conference was attended by 160 delegates from 16 countries. The Soviet delegation consisted of 4 collaborators of the Sinological Institute of the AN USSR. The preceding subject dealt with was "Tradition and Innovations in the Chinese Civilization and Literature". All in all 20 lectures were delivered, 8 of which dealt with historical subjects: The lecture delivered by the German historian G. Franke on Teyu-Sy-dao, a politician of the Sun epoch, the lectures delivered by the Soviet delegate V. N. Nikiforov

Card 1/3

The Conference of Sinologists at Marburg.

30-12-15/45

"On the problem of the founding of the Chinese Nation", and R. V. Vyatkin "On the part played by Sym Tsyau' in the development of historical knowledge", etc. Several lectures dealt with problems of literature and art. The following are worth mentioning: the problematic and interesting lecture delivered by J. Prusek (CSR) "On the Part Played by Traditions in Chinese Literature", those by S. D. Markova "On the Tradition and Innovations in the Early Poetry of Go MoZho", by Pan' chzhun-guy (Singapore) on the novel "Khunloumyn", and by E. Burkhardt (Switzerland) on the famous Chinese painter Tsi Bay-shi. The analysis of the ancient Chinese mathematical treatise "Tszyuchzhan suan'shu" was carried out by E. I. Berezkina and Van Lin (England). R. Khussene (England) spoke about the problem of changing over from Chinese hieroglyphics to the Latin alphabet. Several lectures caused lively discussions. By request of the participants the author gave a report on the results obtained at the I. All-Union Conference of orientalists at Tashkent. As an important result achieved at the past conference the establishment of closer contact among the men of learning of different countries must be mentioned. Further mention must be made of the good organization and of the hospitality shown by the Marburg scientists and of the

Card 2/3

The Conference of Sinologists at Marburg.

30-12-15/45

spirit of mutual understanding. It was, however, most unfortunate that the conference was not attended by delegates from the Chinese People's Republic. The majority of the delegates apparently recognized the unfortunate character of this state of affairs, and during the final session the text of a letter addressed to the ~~scientists~~ of the Chinese People's Republic was unanimously approved. In this letter great regret was expressed that no delegates from Chinese People's Republic had come, and an invitation was issued for the next regular conference of young sinologists, which is due to take place at Venice in 1958. The theme to be discussed will be "The Method of a Critical Attitude in the Study of Sources".

AVAILABLE: Library of Congress

1. Sinologist--Conference 2. Culture--China

Card 3/3

VYATKIN, S.K., vetvrach.

Use of antibiotics on state farms of North Kazakhstan. Zaiivotnovodstvo
20 no.3:40 Mr '58. (MIRA 11:2)
(North Kazakhstan Province--Stock and stockbreeding)
(Antibiotics)

Melting gold-bearing ores in water-jacketed furnaces. S. E. Nyatkin. *L'Europe Metall.* 13, 52 (1908); *Chimie et Industrie* 41, 291. Fusion in water-jacketed furnaces of Au-bearing ores contg. 60-65, 75 or 85-95% SnO_2 offers special difficulties, provided the compn. of the charge is such as to produce a glass contg. 40-45% SnO_2 ; with higher SiO_2 content in the slag, the efficiency of the furnace decreases. A. Papineau-Créture

ASD-LLA METALLURGICAL LITERATURE CLASSIFICATION

<p>117 AND 118 CIPERS</p>		<p>119 AND 120 CIPERS</p>	
<p>CA</p>		<p>16</p>	
<p>processes and procedures used New process for making alcohol from chicory. V. Vyatkin. <i>Spirits-Vodochasny Prom.</i> 17, No. 9, 13-14 (1940).—A new process for fermenting chicory to alc. differs from the old method in not boiling the mash. The fuel saving is 30-40%, and the chicory enzymes remain active, aiding in the fermentation of inulin. Ground raw chicory is fermented with <i>Aspergillus niger</i> (to convert inulin to fructose) and yeast (to ferment fructose). The alc. yield is 90-97 l. per 1000 kg. of chicory instead of 67-70 l. as in the older method. Julian F. Smith</p>			
<p>ASS-5LA METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>FROM SYNDICATE</p>		<p>FROM BOWERY</p>	
<p>101000 HIT QRY 001</p>		<p>011101 QRY 001 101</p>	
<p>101000 HIT QRY 001</p>		<p>011101 QRY 001 101</p>	

KRUTOV, Mikhail Illarionovich; MARKOV, A.G.; SAMODANOVA, Valentina
Mikhaylovna; VYATKIN, S.V.; PESTRYAKOV, A.I., red.; GUREVICH,
M.M., tekhn. red.

[Catalog of spare parts for the machinery used in the cultivation of sugar beets] Katalog zapasnykh chastei k mashinam po
vzdel'yvaniyu sakharnoi svokly. Moskva, Gos. izd-vo sel'khoz.
lit-ry, 1959. 72 p. (MIRA 14:12)
(Sugar beets) (Agricultural machinery)

L 52169-65

EWG(1)/EWG(2)/EWG(3)/EWG(4)/EWG(5)/EWG(6)/EWG(7)/EWG(8)/EWG(9)/EWG(10)/EWG(11)/EWG(12)/EWG(13)/EWG(14)/EWG(15)/EWG(16)/EWG(17)/EWG(18)/EWG(19)/EWG(20)/EWG(21)/EWG(22)/EWG(23)/EWG(24)/EWG(25)/EWG(26)/EWG(27)/EWG(28)/EWG(29)/EWG(30)/EWG(31)/EWG(32)/EWG(33)/EWG(34)/EWG(35)/EWG(36)/EWG(37)/EWG(38)/EWG(39)/EWG(40)/EWG(41)/EWG(42)/EWG(43)/EWG(44)/EWG(45)/EWG(46)/EWG(47)/EWG(48)/EWG(49)/EWG(50)/EWG(51)/EWG(52)/EWG(53)/EWG(54)/EWG(55)/EWG(56)/EWG(57)/EWG(58)/EWG(59)/EWG(60)/EWG(61)/EWG(62)/EWG(63)/EWG(64)/EWG(65)/EWG(66)/EWG(67)/EWG(68)/EWG(69)/EWG(70)/EWG(71)/EWG(72)/EWG(73)/EWG(74)/EWG(75)/EWG(76)/EWG(77)/EWG(78)/EWG(79)/EWG(80)/EWG(81)/EWG(82)/EWG(83)/EWG(84)/EWG(85)/EWG(86)/EWG(87)/EWG(88)/EWG(89)/EWG(90)/EWG(91)/EWG(92)/EWG(93)/EWG(94)/EWG(95)/EWG(96)/EWG(97)/EWG(98)/EWG(99)/EWG(100)

WIRELESS. Radiation from wireless. J. ELECTRONIC TECHNOLOGY, NO. 8, 1965, 15-17

TOPIC TAGS: CARBON, TEMPERATURE MEASUREMENT (1/1)

ASSOCIATED WITH: 1000

1000

1000

VYATKIN, S.Ye.; KURYATNIKOV, A.I.; LEBEDEV, S.I.; RYBALKIN, N.H.;
STERLYADKINA, Ye.K.

Use of fibrous materials in industry. Konstr. uglegraf. mat.
no.1:58-63 :64. (MIRA 17:11)

VYATKIN, S.Ye.; ORLOVTSEV, Yu.V.; KROTOV, A.I.; NEPOMNYASHCHIY, L.B.

Preparation and properties of pyrolytic graphite. Konstr. uglegraf.
mat. no.1:9-19 '64. (MIRA 17:11)

VYATKIN, V.N.

Comparison of various methods of voltage drop compensation in
30 - 150 kv. open-loop electric power transmission lines. Trudy
Lengidroproektia no.1:174-188 '61.

Simplified calculation of shielded bus conductors. Ibid.:189-203
(MIRA 18:10)

VYATKIN, V.N.

Facilitate devices for the water treatment equipment. Energetik 12
no.11s24 N 161 (MIRA 18s2)

VIATKIN, V.P., kand.tekhn.nauk

Impact loads caused by engaging rigid clutches of crank presses.
Sbor. MOSSTANKIN no.4:45-81 '58. (MIRA 12:4)
(Power presses)

NAVROTSKIY, G.A.; VIATKIN, V.P.

Forty years of the Soviet forging and pressing machinery industry.
Stan. 1 instr. 28 no.11:1-4 N '57. (MIRA 10:12)
(Forging machinery)
(Power presses)

ZOT'YEV, A.I., kand.tekhn.nauk, red.; BOL'SHAKOV, G.P., inzh., red.; VIATKIN, V.P., kand.tekhn.nauk, red.; VASIL'YEV, N.H., inzh., red.; YEREMKIN, A. P., inzh., red.; IVAKIN, I.Ya., inzh., red.; MATVEYEV, I.B., kand.tekhn.nauk, red.; MAR'YANCHIK, M.A., inzh., red.; NOVIKOV, P.V., inzh., red.; PEREVOZCHIKOV, B.S., inzh., red.; PODREZ, S.A., inzh., red.; RUBNIKOVA, L.V., red.; UKHANOV, V.N., red.; CHUDAKOV, P.D., kand.tekhn.nauk, red.; STEPANCHENKO, N.S., red.izd-va; SOKOLOVA, T.F., tekhn.red.

[Investigation and design of drop forging and die stamping machinery]
Issledovaniia i raschety mashin kuznechno-shtampovogo proizvodstva.
Pod red. A.I.Zot'eva. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry. Vol.1. 1959. 233 p. (MIRA 13:4)

1. Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-pressovogo mashinostroyeniya.
(Forging machinery)

VYATKIN, V. P. - "

VYATKIN, V. P. - "Investigation of the dynamics of inserting hard dies in crank presses". Moscow, 1955. Min Higher Education USSR, Moscow Machine-Tool and Tool Inst imeni I. V. Stalin. (Dissertation for the Degree of Candidate of Technical Sciences).

SO: Knizhaya Letopis' No. 46, 12 November, 1955. Moscow

VYATKIN, V.V.
CA

Alcohol. V. B. Fremel, V. V. Vyatkin, Kh. Z. Nian'kov, and A. P., Smirnov. U.S.S.R. 67,012, Sept. 30, 1946. A starchy material is pasteurized at (x)-70°, then treated with the enzyme of *Aspergillus niger* or similar fungus. It is preferable to add part of the enzyme before heating and the rest after heating and cooling to 30°. M. Hloach

A58-564 METALLURGICAL LITERATURE CLASSIFICATION
STONY STRONGING
CONCORD #2

COLLECTOR
ALCOHOL 1
V 54
A 1
I 8
M 0
N 7
B 0
C 5
D 1
E 0
F 0
G 0
H 0
J 0
K 0
L 0
M 0
N 0
O 0
P 0
Q 0
R 0
S 0
T 0
U 0
V 0
W 0
X 0
Y 0
Z 0

CLASSIFICATION		PROCESSING AND PROPERTIES INDEX	
CA	VYATKIN, V.V.	<p>Growing molds of the <i>Aspergillus</i> family. V. V. Vyatkin, Kh. Z. Stan'kov, A. G. Legunov, D. N. Klimovskii, R. V. Feniksova, and G. F. Zelikman. U.S.S.R. 68,325, Apr. 30, 1947. Spores are started in a liquid substratum where they are kept submerged for 16-20 hrs. with continuous aeration in the presence of an antiseptic. Nine-tenths of the culture is transferred to a larger vessel wherein it is mixed with fresh mash taken in a ratio of 1:10. To the remaining 1/10, fresh nutrient is added to make up the original vol. and the process is continued.</p> <p>M. Hovch</p>	
<p>ASPERGILLUS DETAILING LITERATURE CLASSIFICATION</p>		<p>CLASSIFICATION</p>	

VYATKIN, V.V.

Increase of the fermentation activity of the hypogeous culture of
Aspergillus niger with the help of magnesium compounds. Trudy
TSNIISP no.6:112-116 '58. (MIRA 14:12)

(Aspergillus niger) (Fermentation)

VYATKIN, V.V.

Effect of magnesium salts on the enzyme activity of a deep culture
of *Aspergillus niger*. Trudy Inst. mikrobiol. no. 6:150-156 '59.
(MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut spirtovoy i
likerno-vodochnoy promyshlennosti.
(MAGNESIUM SALTS--PHYSIOLOGICAL EFFECT)
(ASPERGILLUS NIGER)

SOV-26-58-10-24/51

AUTHOR: Vyatkin, V.V., Candidate of Agricultural Sciences

TITLE: Cultivating a Fungous Substitute for Malt (Vyrashchivaniye griba, zamenitelya soloda)

PERIODICAL: Priroda, 1958, Nr 10, page 100 (USSR)

ABSTRACT: The fungus *Aspergillus niger* can be used as a substitute for malt and gives a fuller hydrolysis of semi-refined sugars in the spirit industry. The Gadovskiy spirtovyy zavod (Gadovskiy Spirit Plant) is carrying out production trials of a new method for the depth cultivation of *Aspergillus niger*, using vinasse as the basic substrate. The fungus feeds on and accumulates its amylolytic enzymes from the nitrous organic compounds contained in the vinasse. These are at a low concentration but are fully utilized thanks to constant agitation of the substrate. The accumulation of amylolytic enzymes by the fungus is facilitated by the addition to the vinasse of small amounts of starch and magnesium oxide - for a high enzyme titer about 1% starch and 0.1 - 0.25% magnesium oxide. *Aspergillus niger* is acid-resistant and can grow and develop enzymes at an acidity of pH=4, i.e. a value precluding any significant degree of bacterial re-

Card 1/2

Cultivating a Fungous Substitute for Malt

SOV-26-50-10-24/51

production. This thus removes the danger of bacteria' infection of the culture - the bugbear of the depth cultivation method. An economical and efficient aerator has been devised for this process on the principle of the "constantly activated scoop", which combines aeration and agitation by constantly splashing some of the cultural liquid into the air where it takes in oxygen. There is 1 photo.

ASSOCIATION: Institut spirtovoy promyshlennosti - Moskva (Institute of the Alcohol Industry - Moscow)

1. Fungi--Culture
2. Fungi--Nutritive value

Card 2/2

VIATKIN, Ye.

Sectional, reinforced concrete supports in crosscuts. Mast. ugl.
5 no.10:13-14 0 '56. (MLBA 9:12)

1. Assistant kafedry stritel'stva gornykh predpriyatiy Kemerovskogo gornogo instituta.
(Kuznetsk Basin--Mine timbering)

VIATKIN, Ye., inzhener.

Anchored timbering in the crosscut. Mast. ugl. 5 no. 12:10:11 D '56.
(Kuznetsk Basin--Mine timbering) (MLRA 10:2)

VIATKIN, Ye.I., gornyy inzhener; CHECHURIN, Yu. A., gornyy inzhener.

Travelling bin for the removal of rock broken off by blasting.
Gor.zhur. no.12:54 D '56. (MIRA 10:1)

1. Kemerovskiy gornyy institut.
(Mine haulage)

VIATKIN, Ye., assistant; UMNOV, P.

Anchored timbering in the stope. Mast. ugl. 6 no.2:4-6 F '57.
(MIRA 10:4)

1. Kafedra stroitel'stva gornykh predpriyatiy Kemerovskogo
gornogo instituta (for Vyatkin). 2. Nachal'nik gornogo otdela
kombinata Kurbassugol' (for Umnov).
(Kuznetsk Basin--Mine timbering)

RUBIN, K.I.; VYATKIN, Ye.I.; SHMONOV, K.S.; TEPLITSKAYA, G., red.

[Concrete supports made from mine waste] Betonnaia krep'
iz shakhtnykh porod. Kemerovo, Kemerovskoe knizhnoe izd-
vo, 1965. 50 p. (MIRA 18:12)

RUBIN, K.I., inzh.; VYATKIN, Ye.I., kand.tekhn.nauk

In-situ concreting used in lining horizontal mine workings. Shakht.
stroi. 8 no.12:9-11 D '64. (MIRA 18:1)

1. Nachal'nik kombinata Kemerovoshakhtokhimstroy (for Rubin). 2.
Kemerovskiy gornyy institut (for Vyatkin).

VYATKIN, Yevgeniy Ivanovich; CHECHKOV, L.V., red. izd-va;
MESHCHANKINA, I.S., tekhn. red.

[Opening up new horizons in mining steep coal seams] Vskrytie
novykh gorizontov pri razrabotke krutykh plastov uгля.
Moskva, Gosgortekhzdat, 1963. 127 p. (MIRA 16:6)
(Coal mines and mining)

VYATKIN, Ye.I., inzh.

Reinforcing the timbering for fixing bunton sockets. Shakht.
stroi. 4 no. 5:25 My '60. (MIRA 14:4)

1. Kemerovskiy gornyy institut.
(Mine timbering)

VIATKIN, Ye.I., inzh.

✓ Experience in shaft deepening at the "Taibinskaia" Mine. Shakht.
no. 9:21-24 '58. (MIRA 11:10)
(Donets Basin--Shaft sinking)

VYATKIN, Ye. I.

VYATKIN, Ye. I.

Using anchor bolts for shaft sinking in difficult geological
conditions. Shakht. stroi. no. 12:29 D '57. (MIRA 11:1)
(Shaft sinking--Equipment and supplies)

VYATKIN, Ye., inzhener.

Temporary supports in chamber workings. Mast. ugl. 4 no.10:
11-12 0 '55. (MLRA 9:1)
(Kuznetsk Basin--Mine timbering)

VYATKIN, Ye., inzhener

One hundred and twenty meters of inclined seam monthly. Mast.
ugl. 4 no. 7:16 J1'55. (MIRA 8:10)
(Kuznetsk Basin--Coal mines and mining)

VYATKINA, A.M.

Work of the Komi Branch of the All-Union Geographical Society in
1958-1960. Izv.Komi fil.Geog.ob-va SSSR no.7:134-139 '62.

(MIRA 15:12)

(Komi A.S.S.R.—Geographical societies)

18.7500

68875

S/139/59/000/05/020/026

E201/E191

AUTHORS: Savintsev, P.A., Avericheva, V.Ye., Zlenko, V.Ya.,
Vyatkina, A.V., and Ignat'yeva, M.I.

TITLE: On the Nature and the Linear Velocity of Contact Melting

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1959, Nr 5, pp 128-133 (USSR)

ABSTRACT: Contact melting is used in preparation of alloys (Ref 1) and in physico-chemical analysis (Ref 2). It was suggested (Ref 3) that contact melting of alkali-halide crystals is due to formation of a low-melting-point solid solution by mutual diffusion of the components. To study contact melting in greater detail the authors measured the temperature dependence of the lattice constants of components in the eutectic mixture of powders KCl-KI (Figs 1 and 2), the temperature dependence of the surface and bulk diffusion coefficients in KCl-NaCl (Table 1), KCl-KBr, and KCl-KI monocrystals, the temperature dependence of the electrical conductivity of the powder mixtures KI-NaCl (Table 3), KI-NaBr (Table 3), and the heat of formation of the eutectic alloys KCl-K₂CrO₄ (Table 2), KCl-KI (Table 2). The authors used the X-ray diffraction method developed for high

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S/139/59/000/05/020/026

E201/E191

On the Nature and the Linear Velocity of Contact Melting

temperatures at the Institute of General and Inorganic Chemistry, Acad.Sci. USSR (Ref 4). The experiments showed that the contact melting in crystals with unlimited mutual solubility and in crystals forming eutectic alloys is similar. Contact melting can be considered as a proof of mutual solubility of the components. The initial stage of contact melting is a diffusion process. This process produces a layer which is the lowest-melting-point alloy of the two components. The next stage is formation of a liquid layer with subsequent dissolution of the solid components in this liquid. The later stages of contact melting can be described in terms of a "linear velocity" which is the rate of reduction of the length of a rod-shaped sample (Table 4). This velocity can be related to the physical and chemical properties of the components and their melt (Table 5).

There are 2 figures, 5 tables and 9 Soviet references. 4

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2/3

68875

S/139/59/000/05/020/026

E201/E191

On the Nature and the Linear Velocity of Contact Melting

ASSOCIATION: Tomskiy politekhnicheskiy institut imeni S.M.Kirova
(Tomsk Polytechnical Institute imeni S.M. Kirov) ✓

SUBMITTED: April 6, 1959

Card 3/3

VYATKINA, A.V.

Contact melting rate of metals. Izv.vys.ucheb.zav.; fiz. no.3:56-
61 '61. (MIRA 14:8)

1. Tomskiy politekhnicheskii institut im. S.M.Kirova.
(Metal crystals) (Melting)

SAVINTSEV, P.A.; AVERICHEVA, V.Ye.; ZLENKO, V.Ya.; VYATKINA, A.V.;
IGNAT'YEVA, M.I.

Nature and linear velocity of contact melting. Izv.vys.ucheb.
zav.; fiz. no.5:128-133 '59. (MIRA 13:5)

1. Tomskiy politekhnicheskii institut im. S.M.Kirova.
(Alkali metal halides---Thermal properties)
(Systems (Chemistry))

SAVINTSEV, P.A.; VIATKINA, A.V.

Multicomponent low-melting alloys. Izv.vys.ucheb.zav.; fiz.
no.4:120-122 '58. (MIRA 11:11)

1. Tomskiy politekhnicheskiy institut imeni S.M. Kirova.
(Alloys) (Melting points)

VYATKINA, A.M., kandidat geograficheskikh nauk.

~~Water-level curve of the Sysola River. Trudy Komi fil. AN SSSR no.3:~~
112-120 '55. (MIRA 9:10)
(Sysola River--Lumber--Transportation)

AUTHORS: Savintsev, P. A. and Vyatkina, A. V.

SOV/139-58-4-19/30

TITLE: Polycomponent Low Melting-Point Alloys (Polikomponentnyye legkoplavkiye splavy)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, 1958, Nr 4, pp 120-122 (USSR)

ABSTRACT: Paper presented at the Inter-University Conference on Dielectrics and Semi-conductors, Tomsk, February, 1958. Experiments are described which were aimed at producing by means of contact fusion alloys consisting of 5, 6 and 7 components. The method of contact fusion has been described in earlier work of one of the authors and his team (Ref 1). Information on the low melting point alloys which were produced by the method of contact fusion is given in Tables 1-3; of the produced alloys the alloy consisting of seven components contains the following elements: bismuth-germanium-indium-cadmium-tin-lead-zinc and its fusion temperature is 46°C. There is reason to assume that low melting point alloys exist with even more than seven components. It can be assumed that poly-component eutectics are also formed during pressing of crystal powders when pure crystals and crystals with

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Polycomponent Low Melting-Point Alloys

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admixtures get into contact as well as in cast structures; formation of such eutectics is bound to have an influence on the properties of the alloys. The contact fusion of the crystals is attributed to the considerable mobility of particles at the contact surface which leads to the formation of a deorientated layer of a variety of differing particles. The interaction of the contacting particles can also be influenced by the temperature; at a temperature lower than the contact fusion temperature, the interaction of uniform particles predominates over that of the interaction of differing particles and the formation of a liquid phase is out of the question, whilst at a temperature above the contact fusion temperature, the interaction between differing particles is a predominant one which leads to the formation of a liquid layer at the contact of the crystals. Acknowledgment is made to Prof. A. A. Vorob'yev for his

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Polycomponent Low Melting-Point Alloys

SOV/139-58-4-19/30

critical evaluation of the work.

There are 3 tables and 2 references, both of which are Soviet.

ASSOCIATION: Tomskiy politekhnicheskiy institut imeni S.M.Kirova
(Tomsk Polytechnical Institute imeni S. M. Kirov)

SUBMITTED: March 18, 1958

Card 3/3

VYATKINA, A. V., Cand Phys-Math Sci -- "On the contact fusion of certain eutectic systems." Tomsk, 1961. (Min of Higher and Sec Spec Ed RSFSR. Tomsk State U im V. V. Kuybyshev) (KL, 8-61, 226)

- 12 -

26026

S/139/61/000/003/006/013
E021/E335

18.7500

AUTHOR: Vyatkina, A.V.

TITLE: The Rate of Contact Melting of Metals

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Fizika, 1961, No. 3, pp. 56 - 61

TEXT: The rate of contact melting (v) with various areas of contact between crystals, various temperatures and various pressures, was measured by the method given in Ref. 2 (P.A. Savintsev, V.Ye. Avericheva, V.Ya. Zlenko, A.V. Vyatkina and M.I. Ignat'yeva - Fizika, No. 5, 1959) and Ref. 3 (P.A. Savintsev and A.V. Vyatkina - Izv. vuzov., Chernaya metallurgiya, No. 11, 1959). The effect of ageing on v was also determined. The rate of contact melting was found from the relationship:

$$v = a \exp(-U/RT)$$

where U is the energy of activation of contact melting.

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